

Author Index¹, 1983

The Telecommunications and Data Acquisition Progress Report

42-73, January-March, May 15, 1983

42-74, April-June, August 15, 1983

42-75, July-September, November 15, 1983

42-76, October-December, February 15, 1984

Abichandani, K.

- 42-73 Unified Analysis for Antenna Pointing and Structural Errors: Part I, Review, pp. 40-59.

Alberda, M. E.

- 42-76 Telemetry Simulation Assembly Implementation in the DSN, pp. 120-131.

Allen, L. H.

- 42-75 Superconducting Niobium Thin Film Slow-Wave Structures, pp. 39-51.

See Bautista, J. J.

Anderson, G.

- 42-73 Evaluation of Antenna Foundation Elastic Modulus, pp. 89-91.

See McGinness, H.

Bathker, D. A.

- 42-74 Interagency Array Study Report, pp. 117-148.

See Layland, J. W.

- 42-75 RF Performance of a Proposed L-Band Antenna System, pp. 91-97.

See Withington, J. R.

Batty, M. J.

- 42-74 A Southern Hemisphere VLBI Survey on a 275-km Baseline, pp. 183-187.

See Morabito, D. D.

¹ In the case of joint authorship, the reader is referred to the citation under the first author where all authors of the article are listed.

Bautista, J. J.

- 42-75 Superconducting Niobium Thin Film Slow-Wave Structures, pp. 39-51.

J. J. Bautista, S. M. Petty, L. H. Allen, M. R. Beasley, and R. H. Hammond

Beasley, M. R.

- 42-75 Superconducting Niobium Thin Film Slow-Wave Structures, pp. 39-51.

See Bautista, J. J.

Bogan, J. R.

- 42-74 Planetary Radar, pp. 114-116.

J. R. Bogan, R. D. Shaffer, R. M. Goldstein, and R. F. Jurgens

Brokl, S. S.

- 42-75 Polynomial Driven Time Base and PN Generator, pp. 84-90.

Brockman, M. H.

- 42-76 Enhanced Radio Frequency Carrier Margin Improvement for an Array of Receiving Systems with Unequal Predetection Signal-to-Noise Ratios, pp. 170-188.

Brown, D. W.

- 42-74 Interagency Array Study Report, pp. 117-148.

See Layland, J. W.

Cha, A. G.

- 42-73 The JPL 1.5-Meter Clear Aperture Antenna with 84.5 Percent Efficiency, pp. 1-14.

Charng, T.

- 42-73 The Application of the Implicit Alternating-Direction Numerical Technique to Thermal Analysis Involving Conduction and Convection, pp. 119-127.

See Hughes, R. D.

Chian, C. T.

- 42-74 NASTRAN Structural Model for the Large 64-Meter Antenna Pedestal, Part I, pp. 86-96.

C. T. Chian, M. S. Katow, and H. McGinness

- 42-75 NASTRAN Structural Model for the Large 64-Meter Antenna Pedestal, Part II — Improved Model, pp. 105-113.

Churchill, P. N.

- 42-76 First Results of GPS Time Transfer to Australia, pp. 141-160.

See Luck, J. McK.

Clauss, R. C.

- 42-74 Interagency Array Study Report, pp. 117-148.

See Layland, J. W.

Clements, P. A.

- 42-75 Intercontinental Time and Frequency Transfer Using a Global Positioning System Timing Receiver, pp. 98-104.

- 42-76 First Results of GPS Time Transfer to Australia, pp. 141-160.

See Luck, J. McK.

Cohen, E. J.

- 42-73 Radio Interferometric Determination of Source Positions, Intercontinental Baselines, and Earth Orientation With Deep Space Network Antennas — 1971-1980, pp. 128-155.

See Thomas, J. B.

Crowe, R. A.

- 42-75 Design Issues in the GCF Mark IV Development, pp. 132-139.

de Groot, N. F.

- 42-73 Developments Related to the Future Use of the 32-GHz Allocation for Deep Space Research, pp. 165-175.

Deutsch, L. J.

- 42-75 The Effects of Reed-Solomon Code Shortening on the Performance of Coded Telemetry Systems, pp. 14-20.

- 42-76 A Systolic VLSI Design of a Pipeline Reed-Solomon Decoder, pp. 99-113.

See Shao, H. M.

- 42-75 VLSI Architectures for Computing Multiplications and Inverses in $GF(2^m)$, pp. 52-64.

See Wang, C. C.

Divsalar, D.

- 42-74 Symbol Stream Combining Versus Baseband Combining for Telemetry Arraying, pp. 13-28.

Downs, G. S.

- 42-76 SETI Investigations at Jodrell Bank, England: September Through November 1983, pp. 196-205.

G. S. Downs and S. Gulkis

Ellis, J.

- 42-74 Deep Space Navigation with Noncoherent Tracking Data, pp. 1-12.

- 42-75 Orbit Determination of Highly Elliptical Earth Orbiters Using VLBI and Δ VLBI Measurements, pp. 1-13.

See Frauenholz, R. B.

Fanselow, J. L.

- 42-73 Radio Interferometric Determination of Source Positions, Intercontinental Baselines, and Earth Orientation With Deep Space Network Antennas — 1971-1980, pp. 128-155.

See Thomas, J. B.

Faulkner, J.

- 42-74 A Southern Hemisphere VLBI Survey on a 275-km Baseline, pp. 183-187.
See Morabito, D. D.

Fowler, L.

- 42-75 An EPROM-Based Function Generator, pp. 79-83.
L. Fowler and J. A. McNeil

Frauenholz, R. B.

- 42-75 Orbit Determination of Highly Elliptical Earth Orbiters Using VLBI and Δ VBLI Measurements, pp. 1-13.
R. B. Frauenholz and J. Ellis

Freiley, A.

- 42-74 Antenna Microwave Subsystem Controller, pp. 63-72.

Galvez, J. L.

- 42-76 ISEE-3 Microwave Filter Requirements, pp. 114-119.
J. L. Galvez, H. Marlin, and P. Stanton

Goldstein, R. M.

- 42-74 Planetary Radar, pp. 114-116.
See Bogan, J. R.

Gulkis, S.

- 42-74 Gain Stability Measurements at S-Band and X-Band, pp. 159-168.
S. Gulkis and E. T. Olsen

- 42-76 SETI Investigations at Jodrell Bank, England: September Through November 1983, pp. 196-205.
See Downs, G. S.

Hammond, R. H.

- 42-75 Superconducting Niobium Thin Film Slow-Wave Structures, pp. 39-51.
See Bautista, J. J.

Harvey, B. R.

- 42-75 Results of the Australian Geodetic VLBI Experiment, pp. 140-146.
B. R. Harvey, A. Stoltz, D. L. Jauncey, A. Niell, D. Morabito, and R. Preston

Hayes, N. V.

- 42-75 Energy Consumption Analysis of the Venus Deep Space Station (DSS-13), pp. 114-123.

Haynes, R. F.

- 42-74 A Southern Hemisphere VLBI Survey on a 275-km Baseline, pp. 183-187.
See Morabito, D. D.

Hird, E. E.

- 42-76 Operator Workload Measurement Validation for the Mark IV-A DSCC Monitor and Control Subsystem, pp. 132-140.
See Le May, M.

Hughes, R. D.

- 42-73 The Application of the Implicit Alternating-Direction Numerical Technique to Thermal Analysis Involving Conduction and Convection, pp. 119-127.
R. D. Hughes and T. Charny

- 42-74 Thermal Analysis of the X-Band 34-Meter Antenna Feedcone, pp. 73-85.

Jacobson, G. N.

- 42-74 Syntax Editing for Mark IV-A System Performance Test Software, pp. 97-111.

Jauncey, D. L.

- 42-74 A Southern Hemisphere VLBI Survey on a 275-km Baseline, pp. 183-187.
See Morabito, D. D.

- 42-75 Results of the Australian Geodetic VLBI Experiment, pp. 141-146.

See Harvey, B. R.

- Johns, C. E.**
- 42-76 X-Band Uplink Ground Systems Development, pp. 53-57.
- Jurgens, R. F.**
- 42-74 Planetary Radar, pp. 114-116.
See Bogan, J. R.
- Katow, M. S.**
- 42-74 NASTRAN Structural Model for the Large 64-Meter Antenna Pedestal, Part I, pp. 86-96.
See Chian, C. T.
- 42-75 Deformable Subreflector Computed by Geometric Optics, pp. 65-78.
M. S. Katow, I. Khan, and W. F. Williams
- Katz, J.**
- 42-75 Detectors for Optical Communications: A Review, pp. 21-38.
- Kerridge, S. J.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Khan, I.**
- 42-75 Deformable Subreflector Computed by Geometric Optics, pp. 65-78.
See Katow, M. S.
- Klein, M. J.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Koerner, M. A.**
- 42-76 Doppler System Phase Transfer Functions for a System With an X-Band Uplink and X-Band and S-Band Down Links, pp. 58-69.
- Kohlhase, C. E.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Layland, J. W.**
- 42-73 Limits to Arraying, pp. 156-164.
- 42-74 Interagency Array Study Report, pp. 117-148
J. W. Layland, A. M. Ruskin, D. A. Bathker, R. C. Rydgig, D. W. Brown, B. D. Madsen, R. C. Clauss, G. S. Levy, S. J. Kerridge, M. J. Klein, C. E. Kohlhase, J. I. Molinder, R. D. Shaffer, and M. R. Traxler
- Lee, P. J.**
- 42-73 Approximation to the Probability Density at the Output of the Photomultiplier Tube, pp. 36-39.
See Stokey, R. J.
- 42-76 Transfer Function Bounds for Partial-Unit-Memory Convolutional Codes Based on Reduced State Diagram, pp. 70-76.
- Lansing, F. L.**
- 42-74 Thermal Analysis of Antenna Structures: Part II – Panel Temperature Distribution, pp. 29-39.
See Schonfeld, D.
- Le May, M.**
- 42-76 Operator Workload Measurement Validation for the Mark IVA DSCL Monitor and Control Subsystem, pp. 132-140.
M. Le May, E. E. Hird, and B. Y. Rodriguez
- Levitt, B. K.**
- 42-74 SETI Pulse Detection Algorithm: Analysis of False-Alarm Rates, pp. 149-158.
- Levy, G. S.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Lokshin, A.**
- 42-74 The SETI Interpreter Program (SIP) – A Software Package for the SETI Field Tests, pp. 169-182.
See Olsen, E. T.

- Lorden, G.**
- 42-73 Node Synchronization for the Viterbi Decoder, pp. 22-35.
G. Lorden, R. McEliece, and L. Swanson
- Luck, Mck. J.**
- 42-76 First Results of GPS Time Transfer to Australia, pp. 141-160.
J. Mck. Luck, J. R. Woodger, J. E. Wells, P. N. Churchill, and P. A. Clements
- Lyzenga, G. A.**
- 42-74 Two-Dimensional Finite Element Modeling for Modeling Tectonic Stress and Strain, pp. 188-202.
G. A. Lyzenga and A. Raefsky
- Madsen, B. D.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Marlin, H.**
- 42-76 ISEE-3 Microwave Filter Requirements, pp. 114-119.
See Galvez, J. L.
- McEliece, R.**
- 42-73 Node Synchronization for the Viterbi Decoder, pp. 22-35.
See Lorden, G.
- McGinness, H.**
- 42-73 Evaluation of Antenna Foundation Elastic Modulus, pp. 89-91.
H. McGinness and G. Anderson
- 42-74 NASTRAN Structural Model for the Large 64-Meter Antenna Pedestal, Part I, pp. 86-96.
See Chian, C. T.
- McNeil, J. A.**
- 42-75 An EPROM-Based Function Generator, pp. 79-83.
See Fowler, L.
- Merkey, P.**
- 42-76 Optimum Cyclic Redundancy Codes for Noisier Channels, pp. 189-195.
P. Merkey and E. C. Posner
- Molinder, J. I.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Morabito, D. D.**
- 42-74 A Southern Hemisphere VLBI Survey on a 275-km Baseline, pp. 183-187.
D. D. Morabito, R. A. Preston, J. Faulkner, A. E. Wehrle, D. L. Jauncey, M. J. Batty, R. F. Haynes, and A. E. Wright
- 42-75 Results of the Australian Geodetic VLBI Experiment, pp. 140-146.
See Harvey, B. R.
- Niell, A.**
- 42-75 Results of the Australian Geodetic VLBI Experiment, pp. 140-146.
See Harvey, B. R.
- Olsen, E. T.**
- 42-74 Gain Stability Measurements at S-Band and X-Band, pp. 159-168.
See Gulkis, S.
- 42-74 The SETI Interpreter Program (SIP) – A Software Package for the SETI Field Tests, pp. 169-182.
E. T. Olsen and A. Lokshin
- Omura, J. K.**
- 42-75 VLSI Architectures for Computing Multiplications and Inverses in $GF(2^m)$, pp. 52-64.
See Wang, C. C.
- Petty, S. M.**
- 42-75 Superconducting Niobium Thin Film Slow-Wave Structures, pp. 39-51.
See Bautista, J. J.

- Posner, E. A.**
- 42-76 Optimum Cyclic Redundancy Codes for Noisier Channels, pp. 189-195.
See Merkey, P.
- Preston, R. A.**
- 42-74 A Southern Hemisphere VLBI Survey on a 275-km Baseline, pp. 183-187.
See Morabito, D. D.
- 42-75 Results of the Australian Geodetic VLBI Experiment, pp. 140-146.
See Harvey, B. R.
- Purcell, Jr., G. H.**
- 42-73 Radio Interferometric Determination of Source Positions, Intercontinental Baselines, and Earth Orientation With Deep Space Network Antennas — 1971-1980, pp. 128-155.
See Thomas, J. B.
- Quach, C. T.**
- 42-73 Techniques for Analysis of DSN 64-Meter Antenna Azimuth Bearing Film Height Records, pp. 92-118.
See Stevens, R.
- Raefsky, A.**
- 42-74 Two-Dimensional Finite Element Modeling for Modeling Tectonic Stress and Strain, pp. 188-202.
See Lyzenga, G. A.
- Reed, I. S.**
- 42-73 Simplified Syndrome Decoding of $(n, 1)$ Convolutional Codes, pp. 15-21.
I. S. Reed and T. K. Truong
- 42-74 New Syndrome Decoding Techniques for the (n, k) Convolutional Codes, pp. 40-53.
I. S. Reed and T. K. Truong
- 42-75 VLSI Architectures for Computing Multiplications and Inverses in $GF(2^m)$, pp. 52-64.
See Wang, C. C.
- 42-76 A Systolic VLSI Design of a Pipeline Reed-Solomon Decoder, pp. 99-113.
See Shao, H. M.
- Reilly, H. F.**
- 42-75 RF Performance of a Proposed L-Band Antenna System, pp. 91-97.
See Withington, J. R.
- Resch, G. M.**
- 42-76 Another Look at the Optimum Frequencies for a Water Vapor Radiometer, pp. 1-11.
- 42-76 Inversion Algorithms for Water Vapor Radiometers Operating at 20.7 and 31.4 GHz, pp. 12-26.
- Rochblatt, D. J.**
- 42-76 DSN Microwave Antenna Holography, pp. 27-42.
D. J. Rochblatt and B. L. Seidel
- Rodriquez, B. Y.**
- 42-76 Operator Workload Measurement Validation for the Mark IV-A DSCL Monitor and Control Subsystem, pp. 132-140.
See Le May, M.
- Rogstad, D. H.**
- 42-73 Radio Interferometric Determination of Source Positions, Intercontinental Baselines, and Earth Orientation With Deep Space Network Antennas — 1971-1980, pp. 128-155.
See Thomas, J. B.
- Roth, M. G.**
- 42-74 Phase Calibration for the Block I VLBI System, pp. 54-62.
M. G. Roth and T. F. Runge
- Runge, T. F.**
- 42-74 Phase Calibration for the Block I VLBI System, pp. 54-62.
See Roth, M. G.
- Ruskin, A. M.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.

- Rydgig, R. C.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Schonfeld, D.**
- 42-74 Thermal Analysis of Antenna Structures: Part II — Panel Temperature Distribution, pp. 29-39.
D. Schonfeld and F. L. Lansing
- Seidel, B. L.**
- 42-76 DSN Microwave Antenna Holography, pp. 27-42.
See Rochblatt, D. J.
- Shaffer, R. D.**
- 42-74 Radio Astronomy, pp. 112-113.
See Wolken, P. R.
- 42-74 Planetary Radar, pp. 114-116.
See Bogan, J. R.
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Shao, H. M.**
- 42-75 VLSI Architectures for Computing Multiplications and Inverses in GF(2^m), pp. 52-64.
See Wang, C. C.
- 42-76 A Systolic VLSI Design of a Pipeline Reed-Solomon Decoder, pp. 99-113.
H. M. Shao, T. K. Truong, L. J. Deutsch, J. H. Yuen, and I. S. Reed
- Skjerve, L. J.**
- 42-73 Radio Interferometric Determination of Source Positions, Intercontinental Baselines, and Earth Orientation With Deep Space Network Antennas — 1971-1980, pp. 128-155.
See Thomas, J. B.
- Sovers, O. J.**
- 42-73 Radio Interferometric Determination of Source Positions, Intercontinental Baselines, and Earth Orientation With Deep Space Network Antennas — 1971-1980, pp. 128-155.
See Thomas, J. B.
- Spitzmesser, D. J.**
- 42-73 Radio Interferometric Determination of Source Positions, Intercontinental Baselines, and Earth Orientation With Deep Space Network Antennas — 1971-1980, pp. 128-155.
See Thomas, J. B.
- Stanton, P.**
- 42-76 ISEE-3 Microwave Filter Requirements, pp. 114-119.
See Galvez, J. L.
- Stevens, R.**
- 42-73 Techniques for Analysis of DSN 64-Meter Antenna Azimuth Bearing Film Height Records, pp. 92-118.
R. Stevens and C. T. Quach
- 42-76 Implementation of Large Antennas for Deep Space Mission Support, pp. 161-169.
- Stokey, R. J.**
- 42-73 Approximation to the Probability Density at the Output of a Photomultiplier Tube, pp. 36-39.
R. J. Stokey and P. J. Lee
- Stoltz, A.**
- 42-75 Results of the Australian Geodetic VLBI Experiment, pp. 140-146.
See Harvey, B. R.
- Swanson, L.**
- 42-73 Node Synchronization for the Viterbi Decoder, pp. 22-35.
See Lorden, G.
- Thomas, J. B.**
- 42-73 Radio Interferometric Determination of Source Positions, Intercontinental Baselines, and Earth Orientation With Deep Space Network Antennas — 1971-1980, pp. 128-155.
J. B. Thomas, O. J. Sovers, J. L. Fanselow, E. J. Cohen, G. H. Purcell, Jr., D. H. Rogstad, L. J. Skjerve and D. J. Spitzmesser
- Townes, S. A.**
- 42-75 A Study of the Charged Particle Calibration Requirements for the Deep Space Network, pp. 124-131.

- Traxler, M. R.**
- 42-74 Interagency Array Study Report, pp. 117-148.
See Layland, J. W.
- Truong, T. K.**
- 42-73 Simplified Syndrome Decoding of $(n, 1)$ Convolutional Codes, pp. 15-21.
See Reed, I. S.
- 42-74 New Syndrome Decoding Techniques for the (n, k) Convolutional Codes, pp. 40-53.
See Reed, I. S.
- 42-75 VLSI Architectures for Computing Multiplications and Inverses in $GF(2^m)$, pp. 52-64.
See Wang, C. C.
- 42-76 A Systolic VLSI Design of a Pipeline Reed-Solomon Decoder, pp. 99-113.
See Shao, H. M.
- Vo, Q. D.**
- 42-76 Signal-to-Noise Ratio and Combiner Weight Estimation for Symbol Stream Combining, pp. 86-98.
- 42-76 Simulations for Full Unit-Memory and Partial Unit-Memory Convolutional Codes With Real-Time Minimal-Byte-Error Probability Decoding Algorithm, pp. 77-85.
- Wales, K. J.**
- 42-73 The Network Information Management System (NIMS) in the Deep Space Network, pp. 85-88.
- Wang, C. C.**
- 42-75 VLSI Architectures for Computing Multiplications and Inverses in $GF(2^m)$, pp. 52-64.
C. C. Wang, T. K. Truong, H. M. Shao, L. J. Deutsch, J. K. Omura and I. S. Reed
- Wehrle, A. E.**
- 42-74 A Southern Hemisphere VLBI Survey on a 275-km Baseline, pp. 183-187.
See Morabito, D. D.
- Wells, J. E.**
- 42-76 First Results of GPS Time Transfer to Australia, pp. 141-160.
See Luck, J. McK.
- Williams, W. F.**
- 42-73 RF Design and Predicted Performance for a Future 34-Meter Shaped Dual-Reflector Antenna System Using the Common Aperture X-S Feedhorn, pp. 74-84.
- 42-75 Deformable Subreflector Computed by Geometric Optics, pp. 65-78.
See Katow, M. S.
- Withington, J. R.**
- 42-75 RF Performance of a Proposed L-Band Antenna System, pp. 91-97.
J. R. Withington, H. F. Reilly, Jr., and D. A. Bathker
- Wolken, P. R.**
- 42-74 Radio Astronomy, pp. 112-113.
P. R. Wolken and R. D. Shaffer
- Woodger, J. R.**
- 42-76 First Results of GPS Time Transfer to Australia, pp. 141-160.
See Luck, J. McK.
- Wright, A. E.**
- 42-74 A Southern Hemisphere VLBI Survey on a 275-km Baseline, pp. 183-187.
See Morabito, D. D.
- Wu, S. C.**
- 42-73 A Covariance Analysis for the Determination of Baselines Observing GPS Satellites, pp. 65-73.

Young, P. H.

42-76 Loop Gain and Circuit Parameters for Residual
Carrier Tracking in the Advanced DSN Block V
Receiver, pp. 43-52.

Yuen, J. H.

42-76 A Systolic VLSI Design of a Pipeline Reed-Solomon
Decoder, pp. 99-113.
See Shao, H. M.